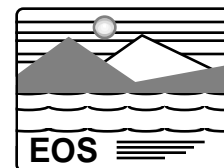




## EOS AM-1 Mission Operations Review

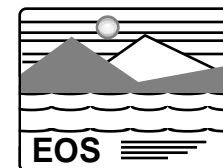


# FLIGHT OPERATIONS ORGANIZATION

**RICK HUDSON**  
**Lockheed Martin Space Mission Systems**  
**Goddard Space Flight Center/Code 505**  
**Greenbelt, MD 20771 USA**  
**E-mail: [rhudson@eos.hitc.com](mailto:rhudson@eos.hitc.com)**



# FOT Background



## Name

## FOT Position

## Previous Experience

### GSFC

R. Hudson  
N. Pingitore

FOT Manager  
Flight Systems Eng.

OAQ, SMM, Landsat, OSP  
Landsat, Superbird,  
EP/EUVE

R. Jones  
K. McKenzie  
B. Muscovich  
M. Heidenreich

Ground System Eng.  
Operations Coordinator  
Offline Engineer  
Offline Engineer

Landsat, EP/EUVE, GOES  
Landsat, EP/EUVE  
Landsat  
EP/EUVE

### VF

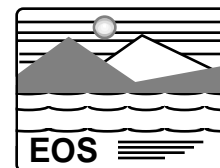
D. Lozinski (Lead)  
E. Moyer  
S. Smith  
B. Wishnefsky

Database/Test Eng.  
Power Engineer  
Comm. Engineer  
GN&C Engineer

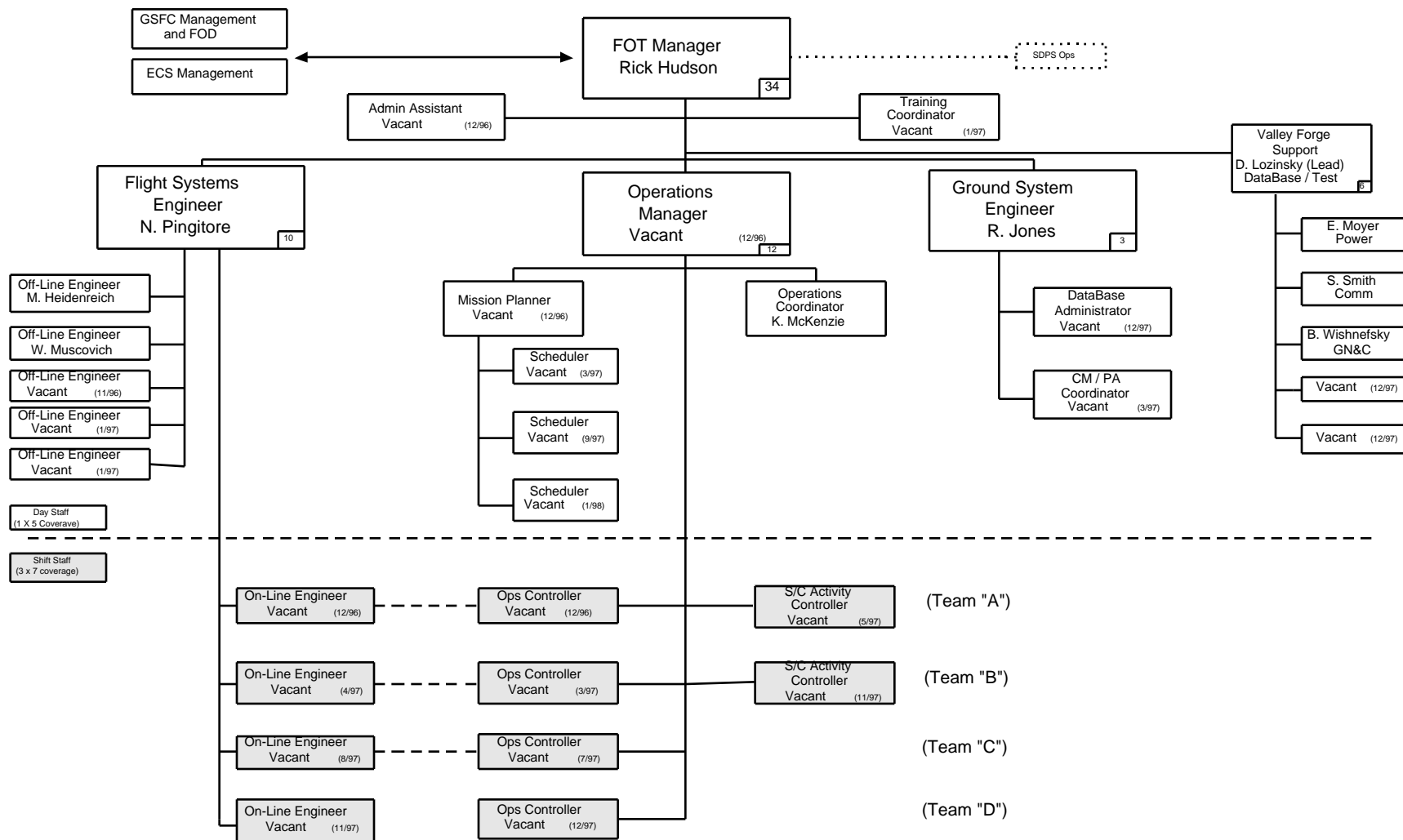
OAQ, SMM, DOD, SSF, OSP  
EP/EUVE  
NRL, NSA  
WIND/POLAR



# FOT Organization

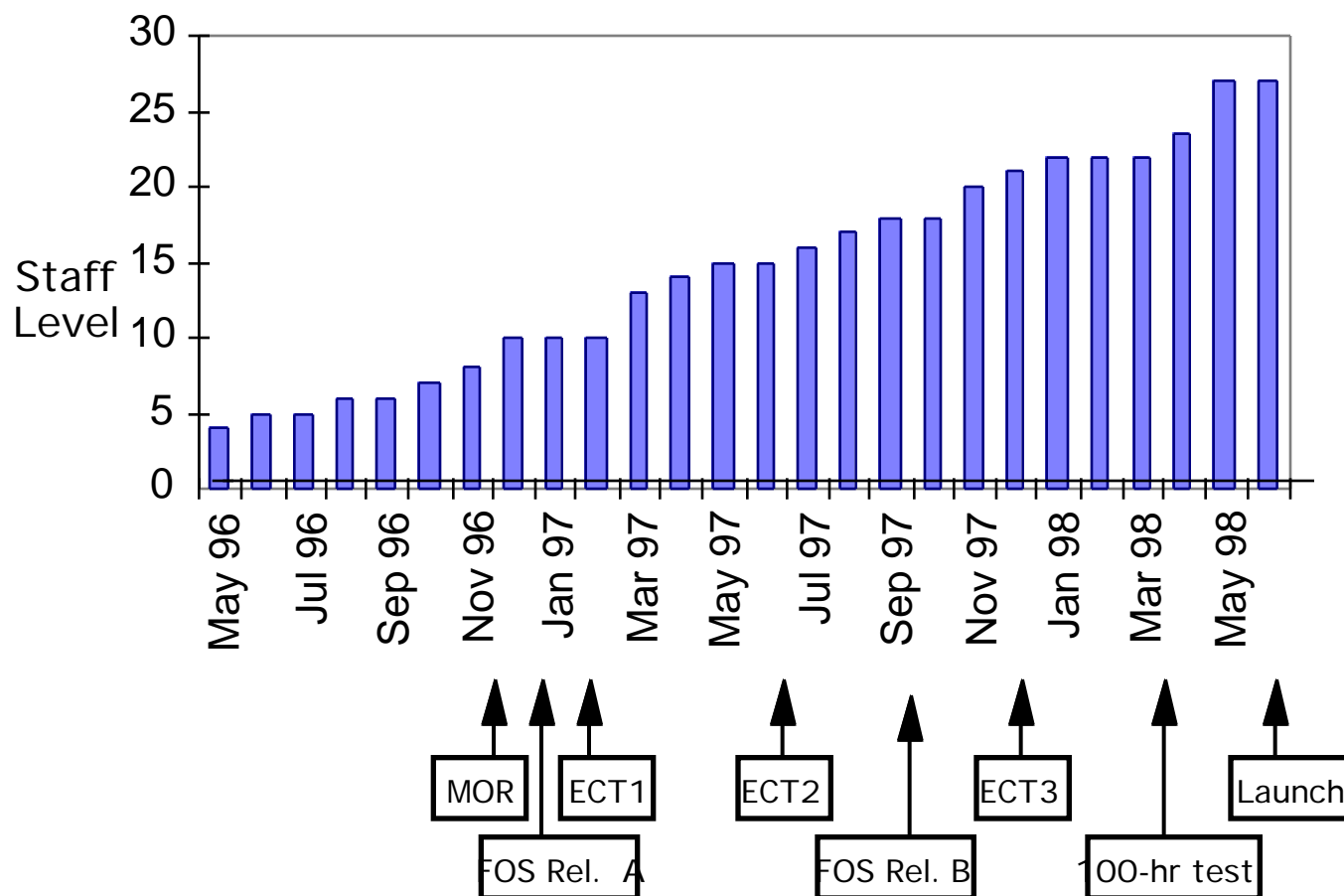
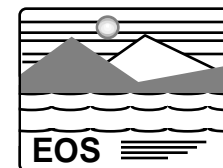


## FOT Organization



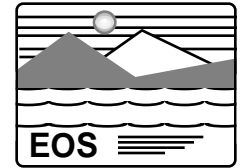


# FOT Flight Engineering and Operations Staff Phase-In





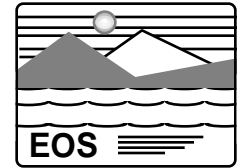
# FOT Management



- **FOT Manager**
  - Provides primary interface with ESDIS; receives operational direction from and provides FOT status information to the Flight Operations Director (FOD)
  - Provides management and technical direction and receives operational status information from the Operations Manager, Flight Systems Engineer, Ground System Engineer, and VF staff
- **Training Coordinator**
  - Administers FOT training program and maintains FOT training materials
- **Administrative Assistant**
  - Performs administrative tasks for FOT



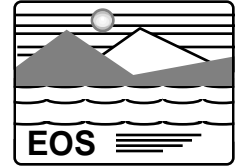
# FOT Operations



- **Operations Manager**
  - Provides technical and management direction to the Operations Coordinator, Operations Controllers, Spacecraft Activity Controllers, and Mission Planner
- **Operations Coordinator**
  - Provides lead operations interface with Flight Systems and Ground System Engineering sections for operational issues
  - Provides lead operational interface for FOS software and PDB deliveries and test coordination
- **Operations Controller/Shift Supervisor**
  - As Lead FOT on-shift position, performs shift briefings and debriefings
  - Monitors FOS activity timelines, TDRSS performance data, and spacecraft clock drifts; and approves FOT real-time command uplinks
- **Spacecraft Activity Controller**
  - Controls and verifies FOS ground script execution, transmits and verifies commands and load uplinks
  - Monitors TDRSS performance data, voice and data lines, EDOS configuration and status messages, and transmits required TDRSS reconfiguration commands



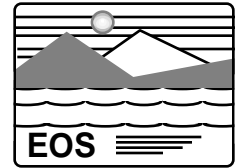
# FOT Scheduling



- **Mission Planner/Supervisor**
  - Main interface for scheduling with internal and external organizations and supervises AM-1 command loads and spacecraft schedules
  - Supervises technical performance of FOT Schedulers
- **Scheduler**
  - Receives and sends planning and scheduling requests and schedules to and from the IOTs and ICC
  - Provides FOT with command loads, scripts, command requests, and coordinates schedules with EDOS and NCC



# FOT Flight Systems Engineering

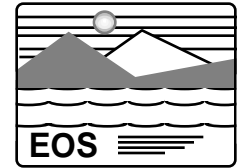


- **Flight Systems Engineer**
  - Is responsible for overall spacecraft health and safety
  - Provides lead technical support for spacecraft engineering and operational activities and anomaly investigations
- **Offline Engineer**
  - Receives and sends spacecraft, instrument, and trend performance reports to and from the FOT, NASA, IOTs, and ICC
  - Lead engineer for assigned spacecraft subsystems or instruments
- **Online Engineer**
  - Monitors spacecraft subsystem and instrument health, safety, and ground script execution
  - Reviews, monitors, and supports command activity, spacecraft activity log, spacecraft recorder management, and clock maintenance





# FOT Ground System Engineering



- **Ground System Engineer**
  - Coordinates analysis and implementation of all ground system CCRs
  - Coordinates ground system configuration, status, software development and maintenance
- **Configuration Management/Performance Assurance (CM/PA) Coordinator**
  - Records and manages proposed and approved configuration change requests (CCRs), coordinates CCR impact assessments and resolutions with external interfaces, and supports deliberations of the CCB
  - Records, reports, and tracks FOT problems recorded in Trouble Ticket System Database and supports Trouble Ticket Review Board (TTRB) deliberations
- **Database Manager**
  - Lead database administrator for PDB and operational data files (ODFs) [command procedures, real-time subsystem (RTS), pages and rooms, and Telemetry Monitors (TMONs)]
  - Coordinates all database changes and updates